

Margin Agreement

In consideration of your accepting one or more accounts of the undersigned (whether designated by name, number or otherwise), your agreeing to act as broker for the undersigned's purchase or sale of securities or commodities, or your entering into any contract with the undersigned from time to time, including, without limitation, securities contracts, commodity contracts, forward contracts, repurchase agreements, swap agreements, howsoever any such agreement may be evidenced, including agreements confirmed in writing by only one party thereto (this agreement, and all such contracts and transactions, collectively "Contracts"), the undersigned agrees to the following with respect to any of the undersigned's accounts with you for extensions of credit, the purchase and sale of securities, options, and other property, or any transaction between you and the undersigned, and for the purpose of granting you rights of netting and set off and of foreclosure on cash, securities, commodities and other property which may from time to time be held or carried in any account for the undersigned, that is due to the undersigned, or that is delivered to or in the possession or control of you or any of your agents, and any proceeds thereof ("Collateral"). For purposes of this agreement, "you" and "your" refer to Morgan Stanley & Co. Incorporated, Morgan Stanley & Co. International Limited, Morgan Stanley Japan Ltd., Morgan Stanley Asia Ltd., Morgan Stanley Trust Company, Morgan Stanley GMBH, Morgan Stanley Bank Luxembourg, Morgan Stanley Market Products Inc., Morgan Stanley Capital Group Inc., Morgan Stanley Group Inc., and any of their subsidiaries, parents, affiliates, divisions, officers, directors, agents and/or employees (also collectively referred to as "Morgan Stanley" and the "Morgan Stanley Entities").

1. Applicable rules and regulations

All transactions under this agreement shall be subject to the rules and regulations of all applicable federal, state and self-regulatory authorities including but not limited to the Securities and Exchange Commission, all relevant securities and commodity exchanges, the Municipal Securities Rulemaking Board, the National Association of Securities Dealers, the Board of Governors of the Federal Reserve System and the constitution, rules and customs of the exchange or market (and its clearinghouse, if any) where executed.

2. Security interest and lien

All collateral which you may at any time be carrying for the undersigned or which may at any time be in your possession or control for any purpose, including safekeeping, and any proceeds and distributions therefrom, shall be subject to a general lien and a continuing first security interest for the discharge of all Obligations and liabilities of the undersigned to you, irrespective of whether or not you have made advances in connection with such Collateral, and irrespective of the number of accounts the undersigned may have with you, or which Morgan Stanley Entity holds such Collateral. For purposes of this agreement, "Obligations" shall mean any and all obligations of a party arising at any time and from time to time, whether or not mature or contingent, related to the purchase or sale of securities or other property, or under or in connection with any and all Contracts, including without limitation, payment and delivery obligations, obligations relating to the extension of credit or to pay damages (including cost of cover) and payment of legal and other expenses incurred in connection with the enforcement of Contracts. You and the undersigned each acknowledge and agree that each Morgan Stanley Entity which holds Collateral holds such Collateral for itself and also as agent and bailee for all other Morgan Stanley Entities which are secured parties under any Contract. You may, at any time at your discretion and without prior notice to the undersigned, use, apply, or transfer any and all Collateral interchangeably between Morgan Stanley Entities in any accounts in which the undersigned has an interest other than from Regulated Commodity Accounts. In the event of a breach or default under this or any other agreement, you shall have all rights and remedies available to a secured creditor under any applicable law in addition to the rights and remedies provided herein. All Collateral delivered to you shall be free and clear of all prior liens, claims and encumbrances, and the undersigned will not cause or allow any of the Collateral in your possession or control, whether now owned or hereafter acquired, to be or become subject to any liens, security interests, mortgages or encumbrances of any nature other than the security interest created in your favor. The undersigned shall execute such documents and take such other action as you shall reasonably request in

order to perfect your rights with respect to any such Collateral. In addition, the undersigned appoints you as the undersigned's attorney-in-fact to act on the undersigned's behalf to sign, seal, execute, and deliver all documents, and do all such acts as may be required, to realize upon all rights in the Collateral.

3. Rights of Morgan Stanley

You are hereby authorized, in your discretion, (a) upon the undersigned's death or breach of this agreement, (b) upon a breach, repudiation, misrepresentation or default (howsoever characterized) by the undersigned under any Contract, (c) upon the failure by the undersigned to give adequate assurance of due performance as set forth in Section 4 hereof, which shall constitute a material and additional breach, repudiation, misrepresentation or default (howsoever characterized) under the terms of all Contracts, to terminate, liquidate and accelerate any and all Contracts and to exercise any right under any security relating to any Contract and any right to net or set off payments which may arise under any Contract or other agreement or under applicable law, (d) upon the filing by or against the undersigned of a petition or other proceeding in bankruptcy, insolvency, or for the appointment of a receiver, (e) upon the levy of an attachment against any property or the accounts of the undersigned, (f) upon the failure of the undersigned to fulfill or discharge any Obligations under this agreement or any Contract, including but not limited to the failure to make a payment on demand, or (g) should you for any reason whatsoever deem it necessary or desirable for your protection, to cancel any outstanding orders for the purchase or sale of any securities or other property, or to sell any or all of the securities and commodities or other property which may be in your possession or control (either individually or jointly with others), or to buy in any securities, commodities or other property of which the account or accounts of the undersigned may be short. Such sale, purchase or cancellation may be made on the exchange or other market where such business is then usually transacted, or at public auction or at private sale, without advertising the same and without any notice of the time or place of sale to the undersigned or to the personal representatives of the undersigned, and without prior tender, demand or call of any kind upon the undersigned or upon the personal representatives of the undersigned, all of which are expressly waived, and you may purchase the whole or any part thereof free from any right of redemption, and the undersigned shall remain liable for any deficiency; it being understood that a prior tender, demand or call

of any kind from you, or prior notice from you, of the time and place of such sale or purchase shall not be considered a waiver of your right to sell or buy any securities and/or commodities and/or other property held by you, or which the undersigned may owe to you, at any time as provided herein.

4. Adequate assurances

If at any time you have reasonable grounds for insecurity with respect to the undersigned's performance of any of its Obligations, you may demand, and the undersigned shall give, adequate assurance of due performance by the undersigned within 24 hours, or within any shorter period of time you demand, that is reasonable under the circumstances. The adequate assurance of performance that may be demanded by you may... include, but shall not be limited to, the delivery by the undersigned to you of additional property as Collateral.

5. Netting and set off rights of Morgan Stanley

You shall have the right, at any time and from time to time, to set off any and all your Obligations against any and all Obligations of the undersigned and to foreclose on any Collateral for the purpose of satisfying any and all Obligations of the undersigned. The undersigned agrees that the fulfillment of your Obligations is contingent upon there being no breach, repudiation, misrepresentation or default (howsoever characterized) by the undersigned which has occurred and is continuing under any Contract.

6. Currency conversions

You shall have the right to convert currencies in connection with the exercise of your rights hereunder in such a manner as you may determine, in your sole discretion, to be commercially reasonable.

7. Maintenance of Undersigned's collateral

All securities, commodities or other property, now or hereafter in your possession or control (either individually or jointly with others), or deposited to secure the same, including proceeds and distributions thereof, may from time to time and without notice to the undersigned, be carried in your general loans and may be pledged, repledged, hypothecated or re-hypothecated, separately or in common with other securities, commodities or other property, for the sum due to you thereon or for a greater sum and without retaining in your possession and control for delivery a like amount of similar securities, commodities, or other property.

LAY-G20 0938

8. Short and long sales

It is understood and agreed that the undersigned, when placing with you any sell order for a short account, will designate it as such and hereby authorizes you to mark such order as being 'short,' and when placing with you any sell order for a long account, will designate it as such and hereby authorizes you to mark such order as being 'long.' Any sell order which the undersigned shall designate as being for a long account, as above provided, is for securities then owned by the undersigned and, if such securities are not then deliverable by you from any account of the undersigned, the placing of such order shall constitute a representation by the undersigned that it is impracticable for the undersigned then to deliver such securities to you but that the undersigned will deliver them as soon as it is possible to do so, without undue inconvenience or expense to you.

9. Failure of delivery

In case of the sale of any security, commodity, or other property by you at the direction of the undersigned and your inability to deliver the same to the purchaser by reason of failure of the undersigned to supply you therewith, the undersigned authorizes you to borrow or purchase any such security, commodity, or other property necessary to make delivery thereof. The undersigned hereby agrees to be responsible for any loss which you may sustain thereby and any premiums which you may be required to pay thereon, and for any loss which you may sustain by reason of your inability to borrow or purchase the security, commodity, or other property sold to fulfill your delivery obligation.

10. Confirmations, statements, and other communications

Reports of the execution of orders and statements of the account or accounts of the undersigned shall be conclusive and binding if not objected to in writing, the former within five days, and the latter within ten days, after transmittal by you to the undersigned by mail or otherwise. Communications may be sent to the undersigned at the address of the undersigned, or at such other address as the undersigned may hereinafter give you in writing, and all communications so sent, whether by mail, telegraph, messenger or otherwise, shall be deemed given to the undersigned personally as of the date sent, whether actually received or not.

11. No obligations

The undersigned agrees that you shall be under no obligation whatsoever to enter into any Contract with the undersigned.

12. Choice of dispute resolution

ANY DISPUTE THE UNDERSIGNED MAY HAVE WITH YOU ARISING OUT OF, RELATING TO OR IN CONNECTION WITH YOUR BUSINESS, ANY TRANSACTION OR CONTRACT BETWEEN US OR THIS AGREEMENT SHALL BE DETERMINED BY ARBITRATION OR LITIGATION IN COURT AT THE ELECTION OF THE UNDERSIGNED. REGARDLESS OF WHETHER THE UNDERSIGNED CHOOSES TO PROCEED BY ARBITRATION OR LITIGATION, THE UNDERSIGNED AND YOU AGREE TO FOLLOW THE PROCEDURES, AND ABIDE BY THE REQUIREMENTS, LISTED IN PARAGRAPHS 13, 14, AND 17, BELOW.

13. Arbitration

- Arbitration is final and binding on the parties.

- The parties are waiving their right to seek remedies in court, including the right to jury trial.

- Pre-arbitration discovery is generally more limited than and different from court proceedings.

- The arbitrators' award is not required to include factual findings or legal reasoning and any party's right to appeal or to seek modification of rulings by the arbitrators is strictly limited.

- The panel of arbitrators will typically include a minority of arbitrators who were or are affiliated with the securities industry.

ANY ARBITRATION SHALL BE CONDUCTED ONLY BEFORE THE NEW YORK STOCK EXCHANGE, INC., THE AMERICAN STOCK EXCHANGE, INC., THE NATIONAL ASSOCIATION OF SECURITIES DEALERS, INC., OR ANY OTHER SELF-REGULATORY ORGANIZATION OF WHICH YOU ARE A MEMBER. THE UNDERSIGNED HAS THE RIGHT TO ELECT ONE OF THE FOREGOING ORGANIZATIONS, BUT IF THE UNDERSIGNED FAILS TO MAKE SUCH ELECTION BY CERTIFIED LETTER ADDRESSED TO YOU AT YOUR MAIN OFFICE BEFORE THE EXPIRATION OF TEN DAYS AFTER RECEIPT OF A WRITTEN REQUEST FROM YOU TO MAKE SUCH ELECTION THEN YOU MAY MAKE SUCH ELECTION. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS CONSENT BY YOU TO AN AWARD OF PUNITIVE DAMAGES. THE AWARD OF THE ARBITRATORS, OR THE MAJORITY OF THEM, SHALL BE FINAL, AND JUDGMENT UPON THE AWARD RENDERED MAY BE ENTERED IN ANY COURT, STATE OR FEDERAL, HAVING JURISDICTION.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any

pre-dispute arbitration agreement against any person who has initiated in court a putative class action; who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until:

- I The class certification is denied;
- II The class is decertified; or
- III The customer is excluded from the class by the court.

Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of such rights under this agreement except to the extent stated herein.

14. Litigation in court

(A) UNLESS THE PARTIES OTHERWISE AGREE IN WRITING WHEN ANY DISPUTE ARISES, ANY LITIGATION MUST BE INSTITUTED IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK OR THE SUPREME COURT OF THE STATE OF NEW YORK FOR THE COUNTY OF NEW YORK AND THE UNDERSIGNED IRREVOCABLY CONSENTS TO THE JURISDICTION OF EITHER OF THOSE COURTS. (B) ANY RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY CLAIM OR ACTION IS HEREBY WAIVED BY ALL PARTIES TO THIS AGREEMENT.

15. Modification and waiver

The undersigned agrees that you may modify the terms of this agreement at any time upon prior written notice. If the modifications are unacceptable, the undersigned agrees to notify you in writing within ten days of the transmittal of such written notice. You may then terminate the undersigned's account, after which the undersigned agrees to remain liable for all existing liabilities or Obligations. The undersigned further agrees that all transactions and Contracts entered into after such notification shall be subject to the modifications. Under no circumstances may a modification be made by the undersigned without your written consent. To the extent this agreement is inconsistent with any other agreement between you and the undersigned, the provisions of this agreement shall govern. Your failure to insist at any time upon compliance with this agreement or with any of its terms, or any continued course of such conduct on your part shall not constitute or be considered a waiver by you of any of your rights.

16. Severability

If any provision of this agreement is or becomes inconsistent with any applicable present or future law,

rule or regulation, that provision will be deemed modified or, if necessary, rescinded in order to comply with the relevant law, rule or regulation. All other provisions of this agreement will continue and remain in full force and effect. To the extent that this agreement is not enforceable as to any Contract, this agreement shall remain in full force and effect and be enforceable in accordance with its terms as to all other Contracts.

17. Applicable law; Enforceability

THIS AGREEMENT, ITS ENFORCEMENT, ANY CONTRACT AND ANY DISPUTE BETWEEN US, WHETHER ARISING OUT OF OR RELATING TO THE UNDERSIGNED'S ACCOUNTS OR OTHERWISE, SHALL BE GOVERNED BY THE LAW OF THE STATE OF NEW YORK, EXCLUDING ITS CONFLICT OF LAW RULES; and its provisions shall be continuous, shall cover individually and collectively all accounts which the undersigned may open or reopen with you, and shall inure to the benefit of your present organization and any successor organization, irrespective of any change or changes at any time in the personnel thereof, for any cause whatsoever, and of the assigns of your present organization or any successor organization, and shall be binding upon the undersigned, and/or the estate, executors, administrators, trustees, agents, officers, directors and assigns of the undersigned.

18. Lending of securities

Within the limits of applicable law and regulation, until you receive written notice of revocation from the undersigned, you are hereby authorized to lend, to yourselves as brokers or to others, any securities held by you on margin in your possession or control together with all attendant rights of ownership (including the right to vote the securities).

19. Extraordinary events

The undersigned agrees that you will not be liable for any loss caused, directly or indirectly, by government restrictions, exchange or market rulings, suspension of trading, war (whether declared or undeclared), terrorist acts, insurrection, riots, fires, flooding, strikes, failure of utility services, accidents, adverse weather or other events of nature, including but not limited to earthquakes, hurricanes and tornadoes, or other conditions beyond your control. In the event that any communications network, data processing system, or computer system you use or used by the undersigned, whether you own it or not, is rendered inoperable, you will not be liable to the undersigned for any loss, liability, claim, damage or expense resulting, either directly or indirectly, therefrom.

20. Limitation of liability

You shall not be liable in connection with the execution, clearing, handling, purchasing or selling of securities, commodities or other property, or other action, except for gross negligence or willful misconduct on your part.

21. Costs of collection

To the extent permitted by the laws of the State of New York, the reasonable costs and expenses of collection of any debit balance and any unpaid deficiency in the accounts of the undersigned with you, including but not limited to attorneys' fees incurred and payable or paid by you, shall be payable to you by the undersigned.

22. Representations and warranties

The undersigned hereby represents and warrants as of the date hereof, which representations and warranties will be deemed repeated on each date on which a transaction or Contract is effected for the undersigned's account, that:

- a. The undersigned will at all times maintain such securities and other property in the accounts of the undersigned for margin purposes, as required by you from time to time in your sole discretion;
- b. The undersigned is of legal age and is not an employee of any exchange, or of any corporation of which any exchange owns a majority of the capital stock, or of a member of any exchange, or of a member firm or member corporation registered on any exchange, or of a bank, trust company, insurance company or of any corporation, firm or individual engaged in the business of dealing, either as broker or as principal, in securities, bills of exchange, acceptances or other forms of commercial paper;
- c. No other party has an interest in the account or accounts of the undersigned with you;
- d. Except as noted below, the undersigned is not an affiliate (as defined in Rule 144(a)(1) under the Securities Act of 1933) of the issuer of any security held in the undersigned's account and undertakes to inform you of any changes thereof;
- e. It has full power and authority to execute and deliver each Contract and to perform and observe the provisions thereof;
- f. The execution, delivery and performance of each Contract either have been or will be, prior to entering into each Contract, duly authorized by all necessary corporate action and do not contravene any requirement of law or any contractual restriction or agreement binding on or affecting the undersigned or its assets;

g. Each Contract has been or will be at the time it is entered into duly properly executed and delivered by it and constitutes and will constitute a legal, valid and binding obligation enforceable in accordance with its terms;

h. Since the date of its most recent audited or unaudited financial statements, there has been no material adverse change in the business, financial condition, results or operations or prospects of the undersigned; and

i. It owns Collateral assigned and to be assigned to you under each Contract, free and clear of any lien, claims, encumbrances and transfer restrictions, and upon delivery of the Collateral to you or upon the filing of appropriate financing statements, you will have, as security for the Obligations of the undersigned, a perfected first priority security interest. No further filings or recordings with any governmental body, agency or official are necessary to create or perfect the security interest in the Collateral.

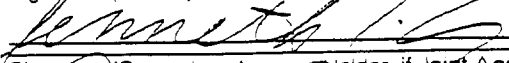
23. Acknowledgements

The undersigned hereby acknowledges that:

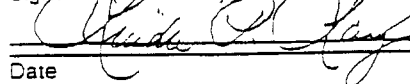
- a. The undersigned has received, and agrees to bound by, your Credit Charge and Margin Information disclosure statement, which is incorporated herein by reference. Debit balances of the accounts of the undersigned shall be charged with interest, in accordance with the methods described in such statement, and with such other charges as you may impose to cover your facilities and extra services. Any interest charged on debit balances which is not paid at the close of an interest period will be added to the opening balance for the next interest period;
- b. The securities in the undersigned's margin account may be loaned to you or loaned out to others; and
- c. The undersigned has received a copy of this agreement.

Notice: This agreement contains a pre-dispute arbitration clause in paragraphs 12, 13, and 17.

Signature (Primary Account Holder)



Signature (Secondary Account Holder, if Joint Account)



Date

7/18/00